

1626.5-1646.5 MHz.....	( <sup>4</sup> )
Radiotelephony:	
1615-27500 kHz <sup>16</sup> .....	H3E, J2D, J3E, R3E
27.5-470 MHz <sup>6</sup> .....	G3D, G3E
1626.5-1646.5 MHz.....	( <sup>4</sup> )
Radiodetermination:	
285-325 kHz <sup>7</sup> .....	A1A, A2A
405-525 kHz (Direction Finding) <sup>8</sup> .....	A3N, H3N, J3N, NON
154-459 MHz: <sup>12</sup> .....	A1D, A2D, F1D, F2D, G1D, G2D
2.4-9.5 GHz.....	PON
Land Stations <sup>1</sup>	
Radiotelegraphy:	
100-160 kHz.....	A1A
405-525 kHz.....	A1A, J2A
1605-2850 kHz:	
Manual.....	A1A, J2A
Facsimile.....	F1C, F3C, J2C, J3C
Alaska-Fixed.....	A1A, J2A
4000-27500 kHz:	
Manual <sup>16</sup> .....	A1A, J2A, J2B, J2D
DSC <sup>18</sup> .....	F1B, J2B
NB-DP <sup>14, 18</sup> .....	F1B, J2B, J2D
Facsimile.....	F1C, F3C, J2C, J3C
Alaska-Fixed <sup>17, 18</sup> .....	A1A, A2A, F1B, F2B, J2B, J2D
72-76 MHz.....	A1A, A2A, F1B, F2B
156-162 MHz <sup>2, 20</sup> .....	F1B, F2B, F2C, F3C, F1D, F2D
DSC.....	G2B
216-220 MHz <sup>3</sup> .....	F1B, F2B, F2C, F3C
Radiotelephony:	
1615-27500 kHz <sup>18, 19</sup> .....	H3E, J3E, R3E
72-76 MHz.....	A3E, F3E, G3E
156-470 MHz.....	G3E
Radiodetermination:	

2.4-9.6 GHz.....	PON
Distress, Urgency and Safety <sup>8, 9</sup>	
2182 kHz <sup>10, 11</sup> .....	A2B, A3B, H2B, H3E, J2B, J3E
121.500 MHz.....	A3E, A3X, N0N
123.100 MHz.....	A3E
156.750 and 156.800 MHz <sup>13</sup> .....	G3E, G3N
243.000 MHz.....	A3E, A3X, N0N
406.0-406.1 MHz.....	G1D

<sup>1</sup> Excludes distress, EPIRBs, survival craft, and automatic link establishment.

<sup>2</sup> Frequencies used for public correspondence and in Alaska 156.425 MHz. *See* §§ 80.371(c), 80.373(f) and 80.385(b). Transmitters approved before January 1, 1994, for G3E emissions will be authorized indefinitely for F2C, F3C, F1D and F2D emissions. Transmitters approved on or after January 1, 1994, will be authorized for F2C, F3C, F1D or F2D emissions only if they are approved specifically for each emission designator.

<sup>3</sup> Frequencies used in the Automated Maritime Telecommunications System (AMTS). *See* § 80.385(b).

<sup>4</sup> Types of emission are determined by the INMARSAT Organization.

<sup>5</sup> [Reserved].

<sup>6</sup> G3D emission must be used only by one-board stations for maneuvering or navigation.

<sup>7</sup> Frequencies used for cable repair operations. *See* § 80.375(b).

<sup>8</sup> For direction finding requirements see § 80.375.

<sup>9</sup> Includes distress emissions used by ship, coast, EPIRBs and survival craft stations.

<sup>10</sup> On 2182 kHz A1B, A2B, H2B and J2B emissions indicate transmission of the auto alarm signals.

<sup>11</sup> Ships on domestic voyages must use J3E emission only.

<sup>12</sup> For frequencies 154.585 MHz, 159.480 MHz, 160.725 MHz, 160.785 MHz, 454.000 MHz and 459.000 MHz, authorized for offshore radiolocation and related telecommand operations.

<sup>13</sup> Class C EPIRB stations may not be used after February 1, 1999.

<sup>14</sup> NB-DP operations which are not in accordance with ITU-R Recommendations M.625 or M.476 are permitted to utilize any modulation, so long as emissions are within the limits set forth in § 80.211(f).

<sup>15</sup> J2B is permitted only on 2000-27500 kHz.

<sup>16</sup> J2D is permitted only on 2000-27500 kHz, and ship stations employing J2D emissions shall at no time use a peak envelope power in excess of 1.5 kW per channel.

<sup>17</sup> J2B and J2D are permitted provided they do not cause harmful interference to A1A.

<sup>18</sup> Coast stations employing J2D emissions shall at no time use a peak envelope power in excess of 10 kW per channel.

<sup>19</sup> J2D is permitted only on 2000-27500 kHz.

<sup>20</sup> If a station uses another type of digital emission, it must comply with the emission mask requirements of § 90.210, except that Automatic Identification System (AIS) transmissions do not have to comply with the emission mask requirements of § 90.210.

13. Section 80.211 is amended by revising paragraph (e) to read as follows:

**§ 80.211 Emission limitations.**

\* \* \* \* \*

(e) The mean power of EPIRBs operating on 121.500 MHz, 243.000 MHz and 406.0-406.1 MHz must be as follows:

\* \* \* \* \*

14. Section 80.223 is amended by revising paragraph (a)(1) to read as follows:

**§ 80.223 Special requirements for survival craft stations.**

(a) \* \* \* \* \*

(1) 2182 kHz must be able to operate with A3E or H3E and J2B and J3E emissions;

\* \* \* \* \*

15. Section 80.225 is amended by adding paragraphs (a)(1)-(6), and revising the introductory paragraph and paragraphs (a) and (c)(2) to read as follows:

**§ 80.225 Requirements for selective calling equipment.**

This section specifies the requirements for voluntary digital selective calling (DSC) equipment and selective calling equipment installed in ship and coast stations, and incorporates by reference ITU-R Recommendation M.476-5, "Direct-Printing Telegraph Equipment in the Maritime Mobile Service," with Annex, 1995; ITU-R Recommendation M.493-11, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2004; ITU-R Recommendation M.541-9, "Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service," with Annexes, 2004; ITU-R Recommendation M.625-3, "Direct-Printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service," with Annex, 1995; RTCM Paper 56-95/SC101-STD, "RTCM Recommended Minimum Standards for Digital Selective Calling (DSC) Equipment Providing Minimum Distress and Safety Capability," Version 1.0, dated August 10, 1995; and IEC 62238 Ed.1, "Maritime navigation and radiocommunication equipment and systems - VHF radiotelephone equipment incorporating Class 'D' Digital Selective Calling (DSC) - Methods of testing and required test results," (2003). ITU-R Recommendations M.476-5 with Annex, M.493-11 with Annexes 1 and 2, M.541-9 with Annexes, and M.625-3 with Annex, RTCM Paper 56-95/SC101-STD, and IEC 62238 Ed. 1 are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The ITU-R Recommendations can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland. The RTCM standards can be purchased from the Radio Technical Commission for Maritime Services (RTCM), 1800 N. Kent Street, Suite 1060, Arlington, Virginia 22209, [www.rtcn.org](http://www.rtcn.org), email [pubs@rtcn.org](mailto:pubs@rtcn.org).

(a) The requirements for DSC equipment voluntarily installed in coast or ships stations are as follows:

(1) Prior to [one year after the effective date of these rules], DSC equipment must meet the

requirements of the following standards in order to be approved for use: (i) RTCM Paper 56-95/SC101-STD, RTCM Recommended Minimum Standards for Digital Selective Calling (DSC) Equipment Providing Minimum Distress and Safety Capability," Version 1.0, dated August 10, 1995, and ITU-R Recommendation M.493-10, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2000 (including only equipment classes A, B, D, and E); or (ii) ITU-R Recommendation M.493-11, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and, in the case of Class D DSC equipment only, IEC 62238 Ed.1, "Maritime navigation and radiocommunication equipment and systems - VHF radiotelephone equipment incorporating Class 'D' Digital Selective Calling (DSC) - Methods of testing and required test results" (2003).

(2) Beginning [one year after the effective date of these rules], the Commission will not accept new applications (but will continue to process then-pending applications) for certification of non-portable DSC equipment that does not meet the requirements of ITU-R Recommendation M.493-11, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and, in the case of Class D DSC equipment only, IEC 62238 Ed.1, "Maritime navigation and radiocommunication equipment and systems - VHF radiotelephone equipment incorporating Class 'D' Digital Selective Calling (DSC) - Methods of testing and required test results" (2003).

(3) Beginning [four years after the effective date of these rules], the Commission will not accept new applications (but will continue to process then-pending applications) for certification of handheld, portable DSC equipment that does not meet the requirements of ITU-R Recommendation M.493-11, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and, in the case of Class D DSC equipment only, IEC 62238 Ed.1, "Maritime navigation and radiocommunication equipment and systems - VHF radiotelephone equipment incorporating Class 'D' Digital Selective Calling (DSC) - Methods of testing and required test results" (2003).

(4) The manufacture, importation, sale or installation of non-portable DSC equipment that does not comply with either of the standards referenced in paragraph (a)(2) of this section is prohibited beginning [three years after the effective date of these rules].

(5) The manufacture, importation, or sale of handheld, portable DSC equipment that does not comply with either of the standards referenced in paragraph (a)(3) of this section is prohibited beginning [seven years after the effective date of these rules].

(6) Approved DSC equipment that has been manufactured, sold, and installed in conformity with the requirements of this section may be used indefinitely.

\* \* \* \* \*

(c) \* \* \* \* \*

(2) Equipment used to perform a selective calling function during narrow-band direct-printing (NB-DP) operations in accordance with ITU-R Recommendation M.476-5, "Direct-Printing Telegraph Equipment in the Maritime Mobile Service," with Annex, 1995, or ITU-R Recommendation M.625-3, "Direct-Printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service," with Annex, 1995, ITU-R Recommendation M.493-11, "Digital Selective-calling System for Use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and

\* \* \* \* \*

16. Section 80.251 is amended by revising paragraph (a) to read as follows:

#### § 80.251 Scope.

(a) This subpart gives the general technical requirements for certification of equipment used on compulsory ships. Such equipment includes automatic-alarm-signal keying devices, survival craft radio equipment, watch receivers, radar equipment and Ship Security Alert System (SSAS) equipment.

\* \* \* \* \*

17. Section 80.268 is amended by removing paragraph (b)(2) and redesignating paragraph (b)(3) as (b)(2).

18. Section 80.269 is removed.

19. Section 80.271 is amended by revising paragraph (e) to read as follows:

**§ 80.271 Technical requirements for portable survival craft radiotelephone transceivers.**

\* \* \* \* \*

(e) Portable radiotelephone transceivers which are certified to meet the requirements of this section must be identified by an appropriate note in the Commission's database.

20. Section 80.273 is amended to read as follows:

**§ 80.273 Technical requirements for radar equipment.**

(a) Radar installations on board ships that are required by the Safety Convention or the U.S. Coast Guard to be equipped with radar must comply with the documents referenced in the following paragraphs of this section. These documents contain specifications, standards and general requirements applicable to shipboard radar equipment and shipboard radar installations. For purposes of this part the specifications, standards and general requirements stated in these documents are mandatory irrespective of discretionary language. The standards listed in this section are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The IMO standards can be purchased from International Maritime Organization (IMO), Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom; telephone 011 44 71 735 7611. IEC publications can be purchased from the International Electrotechnical Commission, 3 Rue de Varembe, CH-1211 Geneva 20, Switzerland, or from the American National Standards Institute (ANSI) through its NSSN operation ([www.nssn.org](http://www.nssn.org)), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York, NY 10036, telephone (212) 642-4900. ITU documents can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland ([www.itu.int](http://www.itu.int)).

(b) Radar installed on or after [the effective date of these rules], on ships of 300 tons gross tonnage and upwards, and radar installed on a ship after [the effective date of these rules], and certificated by the U.S. Coast Guard under the IMO Code for the Safety of High Speed Craft (IMO Resolution MSC.36(63), May 20, 1994), must comply with:

(1) IMO Resolution MSC.64(67) Annex 4, "Recommendation on performance standards for radar equipment;"

(2) The emission limits contained in Appendix 3 of the ITU radio regulations, section II, "Spurious domain emissions limits for transmitters installed after 1 January 2003 and for all transmitters after 1 January 2012"; and

(3) ITU-R M.1177-3, "Techniques for measurement of unwanted emissions of radar systems," including Annexes 1 and 2 and all appendices thereto (2003).

(c) For any ship of 10,000 tons gross tonnage and upwards or that is otherwise required to be equipped with two radar systems, each of the two radar systems must be capable of operating independently and must comply with the specifications, standards and general requirements set forth on paragraph (b) of this section. One of the systems must provide a display with an effective diameter of not less than 340 millimeters (13.4 inches), (16-inch cathode ray tube). The other system must provide a

display with an effective diameter of not less than 250 millimeters (9.8 inches), (12-inch cathode ray tube).

(d) Radar installed before [the effective date of these rules] must meet and be maintained to comply with the Commission's regulations in effect for the equipment on the date of its installation.

21. Section 80.277 is added to read as follows:

**§ 80.277 Ship Security Alert System (SSAS).**

(a) Vessels equipped with a Ship Security Alert System pursuant to the Safety Convention or United States Coast Guard rules may utilize:

(1) Equipment that complies with RTCM Paper 110-2004/SC110-STD, "RTCM Recommended Standards for Ship Security Alert Systems (SSAS) using the Cospas-Sarsat System," June 4, 2004; or

(2) INMARSAT D+ equipment; or

(3) Equipment that complies with the technical specifications found in this subpart.

(b) RTCM Paper 110-2004/SC110-STD is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The RTCM standards can be purchased from the Radio Technical Commission for Maritime Services (RTCM), 1800 N. Kent St., Suite 1060, Arlington VA 22209, [www.rtcn.org](http://www.rtcn.org), email at [pubs@rtcn.org](mailto:pubs@rtcn.org).

22. Section 80.305 is amended by revising paragraphs (a)(1), (a)(2), (b)(1), and (c) to read as follows:

**§ 80.305 Watch requirements of the Communications Act and the Safety Convention.**

(a) \* \* \* \* \*

(1) If it is not carrying MF-DSC radio equipment, keep a continuous and efficient watch on the radiotelephone distress frequency 2182 kHz from the principal radio operating position or the room from which the vessel is normally steered while being navigated in the open sea outside a harbor or port.

(2) Keep a continuous and efficient watch on the VHF distress frequency 156.800 MHz from the room from which the vessel is normally steered while in the open sea outside a harbor or port. The watch must be maintained by a designated member of the crew who may perform other duties, relating to the operation or navigation of the vessel, provided such other duties do not interfere with the effectiveness of the watch. Use of a properly adjusted squelch or brief interruptions due to other nearby VHF transmissions are not considered to adversely affect the continuity or efficiency of the required watch on the VHF distress frequency. This watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system as required or recommended by the U.S. Coast Guard, when an efficient listening watch is maintained on both the bridge-to-bridge frequency and a separate assigned VTS frequency.

\* \* \* \* \*

(b) \* \* \* \* \*

(1) If it is not carrying MF-DSC radio equipment, keep a continuous watch on 2182 kHz in the room from which the vessel is normally steered while at sea, whenever such station is not being used for authorized traffic. Such watch must be maintained by at least one officer or crewmember who may perform other duties relating to the operation or navigation of the vessel, provided such other duties do not interfere with the watch. A radiotelephone watch receiver having a loudspeaker and a radiotelephone

auto alarm must be used to keep the continuous watch on 2182 kHz. After a determination by the master that maintenance of the watch would interfere with the safe navigation of the ship, the watch may be maintained by use of the radiotelephone auto alarm facility alone.

\* \* \* \* \*

(c) Each vessel of the United States transporting more than six passengers for hire, which is equipped with a radiotelephone station for compliance with part III of title III of the Communications Act but which is not carrying MF-DSC radio equipment, must, while being navigated in the open sea or any tidewater within the jurisdiction of the United States adjacent or contiguous to the open sea, keep a continuous watch on 2182 kHz while the vessel is beyond VHF communication range of the nearest VHF coast station, whenever the radiotelephone station is not being used for authorized traffic. A VHF watch must be kept on 156.800 MHz whenever such station is not being used for authorized traffic. The VHF watch must be maintained at the vessel's steering station actually in use by the qualified operator as defined by §80.157 or by a crewmember who may perform other duties relating to the operation or navigation of the vessel, provided such other duties do not interfere with the watch. The use of a properly adjusted squelch is not considered to adversely affect the watch. The VHF watch need not be maintained by vessels subject to the Bridge-to-Bridge Act and participating in a Vessel Traffic Services (VTS) system when an efficient listening watch is maintained on both the bridge-to-bridge frequency and a VTS frequency.

\* \* \* \* \*

23. Section 80.310 is revised to read as follows:

**§ 80.310 Watch required by voluntary vessels.**

Voluntary vessels not equipped with DSC must maintain a watch on 2182 kHz and on 156.800 MHz (Channel 16) whenever the vessel is underway and the radio is not being used to communicate. Noncommercial vessels, such as recreational boats, may alternatively maintain a watch on 156.450 MHz (Channel 9) in lieu of VHF Channel 16 for call and reply purposes. Voluntary vessels equipped with VHF-DSC equipment must maintain a watch on 2182 kHz and on either 156.525 MHz (Channel 70) or VHF Channel 16 aurally whenever the vessel is underway and the radio is not being used to communicate. Voluntary vessels equipped with MF-HF DSC equipment must have the radio turned on and set to an appropriate DSC distress calling channel or one of the radiotelephone distress channels whenever the vessel is underway and the radio is not being used to communicate. Voluntary vessels equipped with Inmarsat A, B, C, M or Fleet F77 systems must have the unit turned on and set to receive calls whenever the vessel is underway and the radio is not being used to communicate.

24. Section 80.313 is amended by revising the Frequency band column in the table to change the entry "1605-3500 kHz" to "1615-3500 kHz."

25. Section 80.314 is retitled and revised to read as follows:

**§ 80.314 Distress communications.**

(a) The international radiotelephone distress signal consists of the word MAYDAY, pronounced as the French expression "m'aider".

(b) These distress signals indicate that a mobile station is threatened by grave and imminent danger and requests immediate assistance.

(c) The radiotelephone distress call consists of:

(1) The distress signal MAYDAY spoken three times;

(2) The words THIS IS;

(3) The call sign (or name, if no call sign assigned) of the mobile station in distress, spoken three times;

(4) Particulars of the station's position;

(5) The nature of the distress;

(6) The kind of assistance desired; and

(7) Any other information which might facilitate rescue, for example, the length, color, and type of vessel, or number of persons on board.

(d) The procedures for canceling false distress alerts are contained in § 80.335.

26. Section 80.315 is removed.

27. Section 80.316 is removed.

28. Section 80.327 is retitled and amended by adding paragraphs (e), (f), and (g) to read as follows:

**§ 80.327 Urgency signals and messages.**

\* \* \* \* \*

(e) The urgency signal and call, and the message following it, must be sent on one of the international distress frequencies. Stations which cannot transmit on a distress frequency may use any other available frequency on which attention might be attracted.

(f) Mobile stations which hear the urgency signal must continue to listen for at least three minutes. At the end of this period, if no urgency message has been heard, they may resume their normal service. However, land and mobile stations which are in communication on frequencies other than those used for the transmission of the urgency signal and of the call which follows it may continue their normal work without interruption provided the urgency message is not addressed "to all stations".

(g) When the urgency signal has been sent before transmitting a message "to all stations" which calls for action by the stations receiving the message, the station responsible for its transmission must cancel it as soon as it knows that action is no longer necessary. This message of cancellation must likewise be addressed "to all stations".

29. Section 80.328 is removed.

30. Section 80.329 is retitled and amended by adding paragraphs (e), (f), and (g) to read as follows:

**§ 80.329 Safety signals and messages.**

\* \* \* \* \*

(e) The safety signal and call must be followed by the safety message. Where practicable, the safety message should be sent on a working frequency, and a suitable announcement to this effect must be made at the end of the call.

(f) Messages about meteorological warnings, of cyclones, dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation must be preceded by the safety signal.

(g) Stations hearing the safety signal must not make any transmission likely to interfere with the message.

31. Section 80.330 is removed.

32. Section 80.335 is amended by revising paragraphs (a)(2), (b)(2), and (c)(2) to read as follows:

**§ 80.335 Procedures for canceling false distress alerts.**

(a) \* \* \* \* \*

(2) Immediately cancel the distress alert orally over the telephony distress traffic channel



associated with each DSC channel on which the distress alert was transmitted;

\* \* \* \* \*

(b) \* \* \* \* \*

(2) Immediately cancel the distress alert orally over the telephony distress traffic channel associated with each DSC channel on which the distress alert was transmitted; and

\* \* \* \* \*

(c) \* \* \* \* \*

(2) Immediately cancel the distress alert orally over the telephony distress traffic channel associated with each DSC channel on which the distress alert was transmitted;

\* \* \* \* \*

33. Section 80.359 is amended by revising paragraph (b) to read as follows:

**§ 80.359 Frequencies for digital selective calling (DSC).**

\* \* \* \* \*

(b) Distress and safety calling. The frequencies 2187.5 kHz, 4207.5 kHz, 6312.0 kHz, 8414.5 kHz, 12577.0 kHz, 16804.5 kHz and 156.525 MHz may be used for DSC by coast and ship stations on a simplex basis for distress and safety purposes, and may also be used for routine ship-to-ship communications provided that priority is accorded to distress and safety communications. The provisions and procedures for distress and safety calling are contained in ITU-R Recommendation M.541-9, "Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service," with Annexes, 2004, as modified by §80.103(c). ITU-R Recommendation M.541-9 with Annexes is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland.

\* \* \* \* \*

34. Section 80.371 is amended by revising the reference to "West Coat" in the Region column of the table in paragraph (a) to "West Coast," and adding a footnote to the entry for 16537 kHz in the table in paragraph (b)(2) to read as follows:

**§ 80.371 Public correspondence frequencies.**

\* \* \* \* \*

(b) \* \* \* \* \*

(2) \* \* \* \* \*

**PUBLIC CORRESPONDENCE SIMPLEX**

[Non-paired radiotelephony frequencies in the 4000-27500 kHz Band <sup>1</sup> Carrier Frequencies (kHz)]

16537 <sup>2</sup> .....	18825	22174	25100
* * *	* * *	* * *	* * *

\* \* \*

<sup>1</sup> Coast stations limited to a maximum transmitter power of 1 kW (PEP).

<sup>2</sup> The alternative carrier frequency 16537 kHz may be used by ship stations and coast stations for calling on a simplex basis, provided that the peak envelope power does not exceed 1 kW.

(c) Working frequencies in the marine VHF 156-162 MHz band. (1)(i) The frequency pairs listed in the table in this paragraph are available for assignment to public coast stations for public correspondence communications with ship stations and units on land.

\* \* \* \* \*

35. Section 80.373 is amended by revising paragraph (a)(1), adding a footnote to the entry for 12359 kHz in the table in paragraph (c)(1), revising and redesignating paragraph (g) as (g)(1), and adding paragraph (g)(2) to read as follows:

**§ 80.373 Private communications frequencies.**

\* \* \* \* \*

(a) \* \* \* \* \*

(1) Private coast stations must use J3E emission.

\* \* \* \* \*

(c) \* \* \*

12359 <sup>6</sup>

\* \* \*

<sup>6</sup> The alternative carrier frequency 12359 kHz may be used by ship stations and coast stations for calling on a simplex basis, provided that the peak envelope power does not exceed 1 kW.

\* \* \* \* \*

(g)(1) On-board communications: This section describes the carrier frequency pairs assignable for on-board mobile radiotelephony communications. The center of the on-board repeater antenna must not be located more than 3 meters (10 feet) above the ship's working deck. These frequencies are available on a shared basis with stations in the Industrial/Business Radio Pool.

\* \* \*

(2) Where needed, equipment designed for 12.5 kHz channel spacing using the additional frequencies 457.5375 MHz, 457.5625 MHz, 467.5375 MHz, and 467.5625 MHz may be introduced for on-board communications.

\* \* \* \* \*

36. Section 80.385 is amended by removing paragraph (d).

37. Section 80.409 is amended by removing paragraph (e)(5)(ii), redesignating paragraphs (e)(5)(iii) and (e)(5)(iv) as (e)(5)(ii) and (e)(5)(iii), redesignating paragraphs (e)(6)-(12) as (e)(7)-(13), revising paragraphs (a)(1), (a)(2), (d)(2), and (e)(1), and adding a new paragraph (e)(6) to read as follows:

**§ 80.409 Station logs.**

(a) \* \* \* \* \*

(1) The log must be kept in an orderly manner. The log may be kept electronically or in writing. The required information for the particular class or category of station must be readily available. Key letters or abbreviations may be used if their proper meaning or explanation is contained elsewhere in the same log.

(2) Erasures, obliterations, or willful destruction of written logs, or deletions of data or willful

destruction of computer files or computer hardware containing electronic logs, is prohibited during the retention period. Corrections may be made only by the person originating the entry by striking out the error, initialing the correction and indicating the date of correction. With respect to electronic logs, *striking out the error is to be accomplished using a strike-through formatting effect or a similar software function*, and the correction is to be acknowledged through a dated electronic signature at the location of the strike-through.

\* \* \* \* \*

(d) \* \* \* \* \*

(2) "ON WATCH" must be entered by the operator beginning a watch, followed by the operator's signature for stations maintaining written logs. "OFF WATCH" must be entered by the operator being relieved or terminating a watch, followed by the operator's signature for stations maintaining written logs. All log entries must be completed by the end of each watch.

(e) \* \* \* \* \*

(1) A summary of all distress and urgency communications affecting the station's own ship, all distress alerts relayed by the station's own ship, and all distress call acknowledgements and other communications received from search and rescue authorities.

\* \* \* \* \*

(6) An entry at least once every thirty days that the batteries or other reserve power sources have been checked and are functioning properly.

\* \* \* \* \*

38. Subpart R is retitled to read as follows:

**Subpart R – Technical Equipment Requirements for Cargo Vessels Not Subject to Subpart W**

\* \* \* \* \*

39. Section 80.858 is amended by removing paragraph (b) and redesignating paragraphs (c), (d), and (e) as (b), (c), and (d).

\* \* \* \* \*

40. Section 80.871 is amended by removing note 1, and revising the entries for Channels 75 and 76 in the table in paragraph (d) to read as follows:

\* \* \* \* \*

**§ 80.871 VHF radiotelephone station.**

(d) \* \* \*

Channel designators	Transmitting frequencies (MHz)	
	Ship station	Coast station
* * *	* * *	* * *
75.....	156.775	156.775
* * *	* * *	* * *
76.....	156.825	156.825

\* \* \* \* \*

41. Section 80.882 is added to read as follows:

**§ 80.882 2182 kHz watch.**

Ships subject to this subpart must maintain a watch on the frequency 2182 kHz pursuant to § 80.305.

\* \* \* \* \*

42. Section 80.905 is amended by revising paragraphs (a)(1), (a)(2), (a)(3)(i), (a)(3)(iii)(A), (a)(4)(i), (a)(4)(iii)(A), (a)(4)(iii)(B), and (a)(4)(vi) to read as follows:

**§ 80.905 Vessel radio equipment.**

(a) \* \* \* \* \*

(1) Vessels operated solely within 20 nautical miles of land must be equipped with a VHF-DSC radiotelephone installation meeting the requirements of § 80.1101(c)(2), except that a VHF radiotelephone installation without DSC capability is permitted until one year after the Coast Guard notifies the Commission that shore-based sea area A1 coverage is established. Vessels in this category must not operate more than 20 nautical miles from land.

(2) Vessels operated beyond the 20 nautical mile limitation specified in paragraph (a)(1) of this section, but not more than 100 nautical miles from the nearest land, must be equipped with a MF-DSC frequency transmitter meeting the requirements of § 80.1101(c)(3) and capable of transmitting J3E emission and a receiver capable of reception of J3E emission within the band 1710 to 2850 kHz, in addition to the VHF-DSC radiotelephone installation required by paragraph (a)(1) of this section, except that a MF radiotelephone installation without DSC capability is permitted until one year after the Coast Guard notifies the Commission that shore-based sea area A2 coverage is established. The MF or MF-DSC transmitter and receiver must be capable of operation on 2670 kHz.

(3) \* \* \* \* \*

(i) Be equipped with a VHF-DSC radiotelephone installation meeting the requirements of paragraph (a)(1) of this section, except that a VHF radiotelephone installation without DSC capability is permitted until one year after the Coast Guard notifies the Commission that shore-based sea area A1 coverage is established;

\* \* \* \* \*

(iii) \* \* \* \* \*

(A) A DSC-capable single sideband radiotelephone meeting the requirements of § 80.1101(c)(4) and capable of operating on all distress and safety frequencies in the medium frequency and high frequency bands listed in § 80.369(a) and (b), on all of the ship-to-shore calling frequencies in the high frequency bands listed in § 80.369(d), and on at least four of the automated mutual-assistance vessel rescue (AMVER) system HF duplex channels (this requirement may be met by the addition of such frequencies to the radiotelephone installation required by paragraph (a)(2) of this section); or

(B) If operated in an area within the coverage of an INMARSAT maritime mobile geostationary satellite in which continuous alerting is available, an INMARSAT B, C, M, or Fleet F77 ship earth station, or an INMARSAT A ship earth station if installed prior to February 12, 2004.

\* \* \* \* \*

(4) \* \* \* \* \*

(i) Be equipped with two VHF-DSC radiotelephone installations meeting the requirements of paragraph (a)(1) of this section, except that VHF radiotelephone installations without DSC capability are permitted until one year after the Coast Guard notifies the Commission that shore-based sea area A1 coverage is established;

\* \* \* \* \*

(iii) \* \* \* \* \*

(A) A DSC-capable independent single sideband radiotelephone meeting the requirements of paragraph (a)(3)(iii)(A) of this section and that is capable of operating on all distress and safety frequencies in the medium frequency and high frequency bands listed in § 80.369(a) and (b), on all of the ship-to-shore calling frequencies in the high frequency bands listed in § 80.369(d), and on at least four of the automated mutual-assistance vessel rescue (AMVER) system HF duplex channels; or

(B) If operated in an area within the coverage of an INMARSAT maritime mobile geostationary satellite in which continuous alerting is available, an INMARSAT B, C, M, or Fleet F77 ship earth station, or an INMARSAT A ship earth station if installed prior to February 12, 2004.

\* \* \* \* \*

(vi) Be equipped with a Category I 406–406.1 MHz satellite emergency position-indicating radiobeacon (EPIRB) meeting the requirements of §80.1061 or, if the ship is not operating in sea area A4, as defined in § 80.1069(a)(4), an automatic float-free INMARSAT– E EPIRB meeting the requirements of § 80.1063 (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center.); and

\* \* \* \* \*

43. Section 80.913 is amended by revising paragraph (a) to read as follows:

**§ 80.913 Radiotelephone receivers.**

(a) If a medium frequency radiotelephone installation is provided, the receiver must be capable of effective reception of J3E emissions, be connected to the antenna system specified by § 80.923, and be preset to, and capable of accurate and convenient selection of, the frequencies 2182 kHz, 2638 kHz, and the receiving frequency(s) of public coast stations serving the area in which the vessel is navigated.

\* \* \* \* \*

44. Section 80.917 is amended by revising paragraph (a) to read as follows:

**§ 80.917 Reserve power supply.**

(a) The requirements of this section apply (1) to vessels of more than 100 gross tons; and (2) beginning [one year after the effective date] to (i) vessels that carry more than 150 passengers or have overnight accommodations for more than 49 persons; and (ii) vessels that operate on the high seas or more than three miles from shore on Great Lakes voyages. Any such vessel the keel of which was laid after March 1, 1957, must have a reserve power supply located on the same deck as the main wheel house or at least one deck above the vessel's main deck, unless the main power supply is so situated.

\* \* \* \* \*

45. Section 80.933 is amended by removing paragraphs (c) and (d) and redesignating paragraph (e) as paragraph (c).

46. Section 80.1051 is revised to read as follows:

**§ 80.1051 Scope.**

This subpart describes the technical and performance requirements for EPIRB stations.

\* \* \* \* \*

47. Section 80.1061 is amended by revising paragraphs (a), (c), (c)(1)(ii), and (e) to read as follows:

**§ 80.1061 Special requirements for 406.0-406.1 MHz EPIRB stations.**

(a) Notwithstanding the provisions in paragraph (b) of this section, 406.0-406.1 MHz EPIRBs must meet all the technical and performance standards contained in the Radio Technical Commission for Maritime Services document entitled RTCM Paper 77-02/SC110-STD, "RTCM Recommended Standards for 406 MHz Satellite Emergency Position-Indicating Radiobeacons (EPIRBs)," Version 2.1, dated June 20, 2002 (RTCM Recommended Standards). The RTCM Recommended Standards are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of the RTCM Recommended Standards can be inspected at the Federal Communications Commission, 445 12th Street, SW, Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The RTCM Recommended Standards can be purchased from the Radio Technical Commission for Maritime Services, 1800 N. Kent St., Suite 1060, Arlington VA 22209, [www.rtcn.org](http://www.rtcn.org), email at [pubs@rtcn.org](mailto:pubs@rtcn.org).

\* \* \* \* \*

(c) Prior to submitting a certification application for 406.0-406.1 MHz radiobeacon, the radiobeacon must be certified by a test facility recognized by one of the COSPAS-SARSAT Partners that the equipment satisfies the design characteristics associated with the measurement methods described in COSPAS-SARSAT Standards T.001, "Specification for COSPAS-SARSAT 406 MHz Distress Beacons," Issue 3 - Revision 4 (October 2002) and T.007, "COSPAS-SARSAT 406 MHz Distress Beacon Type Approval Standard," Issue 3 - Revision 9 (October 2002). Additionally, the radiobeacon must be subjected to the environmental and operational tests associated with the test procedures described in Appendix A of the RTCM Recommended Standards by a test facility accepted by the U.S. Coast Guard for this purpose. Information regarding accepted test facilities may be obtained from Commandant (G-MSE), U.S. Coast Guard, 2100 2<sup>nd</sup> St., SW, Washington, DC 20593-0001, <http://www.uscg.mil/hq/g-m/mse/lablist/lab161011.pdf>. The COSPAS-SARSAT Standards T.001 and T.007 are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of the COSPAS-SARSAT Standards can be inspected at the Federal Communications Commission, 445 12<sup>th</sup> Street, SW, Washington, DC (Reference Information Center) or at the Office of the Federal Register, 800 North Capitol Street, N.W., Suite 700, Washington, DC. The COSPAS-SARSAT Standards may be obtained from COSPAS-SARSAT Secretariat, c/o Inmarsat, 99 City Road, London EC1Y 1AX, United Kingdom, Telephone: +44 20-7728 1391, Facsimile: +44 20-7728 1170; [www.cospas-sarsat.org](http://www.cospas-sarsat.org).

(1) \* \* \* \* \*

(ii) Copies of the certificate and test data obtained from the test facility recognized by a COSPAS/SARSAT Partner showing that the radiobeacon complies with the COSPAS/SARSAT design characteristics associated with the measurement methods described in the RTCM Recommended Standards and COSPAS-SARSAT Standards;

\* \* \* \* \*

(e) An identification code, issued by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406.0-406.1 MHz COSPAS/SARSAT satellite system, must be programmed in each EPIRB unit to establish a unique identification for each EPIRB station. With each marketable EPIRB unit, the manufacturer or grantee must include a postage pre-paid registration card printed with the EPIRB identification code addressed to: NOAA/SARSAT Beacon Registration, E/SP3, Federal Building 4, Room 3320, 5200 Auth Road, Suitland, MD 20746-4304. The registration card must request the owner's name, address, telephone number, type of ship, alternate emergency contact and other information as required by NOAA. The registration card must also contain

information regarding the availability to register the EPIRB at NOAA's online web-based registration database at: <http://www/beaconregistration.noaa.gov>. In addition, the following statement must be included: "WARNING—failure to register this EPIRB with NOAA before installation could result in a monetary forfeiture being issued to the owner."

\* \* \* \* \*

48. Section 80.1063 is amended by adding a note preceding paragraph (a) to read as follows:

**§ 80.1063 Special requirements for INMARSAT-E EPIRB stations.**

NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center.

\* \* \* \* \*

49. Section 80.1065 is amended by removing paragraphs (a) and (b)(1) through (b)(6), redesignating paragraphs (b) through (d) as paragraphs (a) through (c), and revising redesignated paragraph (a) to read as follows:

**§ 80.1065 Applicability.**

(a) The regulations contained within this subpart apply to all passenger ships regardless of size and cargo ships of 300 tons gross tonnage and upwards.

\* \* \* \* \*

50. Section 80.1071 is amended by revising paragraphs (c)(1)(i) and (c)(1)(ii) to read as follows:

**§ 80.1071 Exemptions.**

\* \* \* \* \*

(c) \* \* \* \* \*

(1) \* \* \* \* \*

(i) A VHF radiotelephone installation.

(ii) A MF or HF radiotelephone installation.

\* \* \* \* \*

51. Section 80.1073 is amended by revising paragraph (a) to read as follows:

**§ 80.1073 Radio operator requirements for ship stations.**

(a) Ships must carry at least two persons holding GMDSS Radio Operator's Licenses as specified in §13.7 of this chapter for distress and safety radiocommunications purposes. The GMDSS Radio Operator's License qualifies personnel as a GMDSS radio operator for the purposes of operating a GMDSS radio installation, including basic equipment adjustments as denoted in the knowledge requirements specified in § 13.203 of this chapter.

\* \* \* \* \*

52. Section 80.1077 is amended by removing footnote 11, and adding footnote 12 to the entry for INMARSAT E-EPIRBs to read as follows:

**80.1077 Frequencies.**

The following table describes the frequencies used in the Global Maritime Distress and Safety System:

Alerting:

\* \* \*

INMARSAT-E EPIRBs<sup>12</sup> ..... 1626.5-1645.5 MHz (Earth-to-space).

\* \* \*

<sup>12</sup> Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center.

\* \* \* \* \*

53. Section 80.1083 is amended by revising paragraph (d) to read as follows:

**§ 80.1083 Ship radio installations.**

\* \* \* \* \*

(d) Shipborne Integrated Radiocommunication System (IRCS) may be utilized to integrate all GMDSS equipment into a standard operator's console. Such installation must be certified in accordance with § 80.1103 and meet the requirements of IMO Assembly Resolution A.811(19), "Performance Standards for a Shipborne Integrated Radiocommunication System (IRCS) When Used in the GMDSS," with Annex, adopted 23 November 1995. IMO Assembly Resolution A.811(19) with Annex is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The IMO standards can be purchased from Publications, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom.

54. Section 80.1085 is amended by revising paragraphs (a)(6)(i) and (a)(6)(iii) to read as follows:

**§ 80.1085 Ship radio equipment—General.**

\* \* \* \* \*

(a) \* \* \* \* \*

(6) \* \* \* \* \*

(i) Capable of transmitting a distress alert through the polar orbiting satellite service operating in the 406.0–406.1 MHz band (406.0–406.1 MHz EPIRB) or, if the ship is not operating in sea area A4, as defined in § 80.1069(a)(4), the 1.6 GHz band (INMARSAT-E EPIRB) (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center); and

\* \* \* \* \*

(iii) Examined and tested annually in accordance with IMO Circular MSC/Circ.1040, Guidelines on annual testing of 406 MHz satellite EPIRBs (28 May 2002). See § 80.1105(k).

\* \* \* \* \*

55. Section 80.1087 is amended by revising paragraph (a)(2) to read as follows:

**§ 80.1087 Ship radio equipment—Sea Area A1.**

\* \* \* \* \*

(a) \* \* \* \* \*

(2) Through the polar orbiting satellite service on 406.0–406.1 MHz or the INMARSAT-E



service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated) (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center); or

\* \* \* \* \*

56. Section 80.1089 is amended by revising paragraph (a)(3)(i) to read as follows:

**§ 80.1089 Ship radio equipment—Sea Areas A1 and A2.**

\* \* \* \* \*

(a) \* \* \* \* \*

(3) \* \* \* \* \*

(i) Through the polar orbiting satellite service on 406.0–406.1 MHz or the INMARSAT-E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated) (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center); or

\* \* \* \* \*

57. Section 80.1091 is amended by revising paragraphs (a)(1)(i), (a)(4)(i), and (b)(3)(ii) to read as follows:

**§ 80.1091 Ship radio equipment—Sea Areas A1, A2, and A3.**

(a) \* \* \* \* \*

(1) \* \* \* \* \*

(i) Transmitting and receiving distress and safety data communications;

\* \* \* \* \*

(4) \* \* \* \* \*

(i) Through the polar orbiting satellite service on 406.0–406.1 MHz or the INMARSAT-E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated) (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center); or

\* \* \* \* \*

(b) \* \* \* \* \*

(3) \* \* \* \* \*

(ii) Through the INMARSAT-E service in the 1.6 GHz band (this requirement may be fulfilled by the EPIRB required by § 80.1085(a)(6), either by installing the EPIRB close to, or by allowing remote activation from, the position from which the ship is normally navigated) (NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center); or

\* \* \* \* \*

58. Section 80.1095 is amended by revising paragraph (a) to read as follows:

**§ 80.1095 Survival craft equipment.**

(a) At least three two-way VHF radiotelephone apparatus must be provided on every passenger ship and on every cargo ship of 500 tons gross tonnage and upwards. At least two two-way VHF radiotelephone apparatus must be provided on every cargo ship of between 300–500 tons gross tonnage. Portable two-way VHF radiotelephones must be stowed in such locations that they can be rapidly placed in any survival craft other than life rafts required by Regulation III/26.1.4 of the SOLAS Convention. Alternatively, survival craft may be fitted with a fixed two-way VHF radiotelephone installation. Two-way VHF radiotelephone apparatus, portable or fixed, must conform to performance standards as specified in §80.1101.

\* \* \* \* \*

59. Section 80.1101 is amended by revising paragraphs (b)(4), (b)(5), (c)(2)(ii), (c)(3)(ii), (c)(4)(ii), (c)(5)(iii), (c)(7)(i), (c)(13)(ii), (c)(13)(iii), (c)(13)(iv), (c)(13)(v), (c)(13)(ix), (d)(3), and (d)(4), and adding paragraphs (c)(2)(iii), (c)(3)(iii), (c)(4)(iii), (c)(11) and (c)(13)(x) to read as follows:

**§ 80.1101 Performance standards.**

\* \* \* \* \*

(b) \* \* \* \* \*

(4) IEC 60092-101, “Electrical installations in ships – Part 101: Definitions and general requirements,” August 2002.

(5) IEC 60533, “Electrical and electronic installations in ships – Electromagnetic compatibility,” November 1999.

\* \* \* \* \*

(c) \* \* \* \* \*

(2) \* \* \* \* \*

(ii) ITU-R Recommendation M.493–11, “Digital Selective-calling System for Use in the Maritime Mobile Service,” with Annexes 1 and 2, 2004.

(iii) ITU-R Recommendation M.541–9, “Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,” with Annexes, 2004.

(3) \* \* \* \* \*

(ii) ITU-R Recommendation M.493–11, “Digital Selective-calling System for Use in the Maritime Mobile Service,” with Annexes 1 and 2, 2004.

(iii) ITU-R Recommendation M.541–9, “Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,” with Annexes, 2004.

(4) \* \* \* \* \*

(ii) ITU-R Recommendation M.493–11, “Digital Selective-calling System for Use in the Maritime Mobile Service,” with Annexes 1 and 2, 2004.

(iii) ITU-R Recommendation M.541–9, “Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service,” with Annexes, 2004.

(5) \* \* \* \* \*

(iii) ITU-R Recommendation M.633–3, “Transmission characteristics of a satellite emergency position-indicating radiobeacon (satellite EPIRB) system operating through a low polar-orbiting satellite system in the 406 MHz band,” 2000.

\* \* \* \* \*

(7) Two-way VHF radiotelephone: IMO Resolution A.762(18), "Performance standards for survival craft two-way VHF radiotelephone apparatus," November 4, 1993.

\* \* \* \* \*

(11) INMARSAT-E EPIRBs: [NOTE: Service to INMARSAT-E EPIRB stations is scheduled to terminate on December 1, 2006, after which time distress signals from INMARSAT-E EPIRB stations will not be received by any Rescue Coordination Center.] (i) IMO Resolution A.812(19), "Performance Standards for Float-Free Satellite EPIRBs Operating Through the Geostationary INMARSAT Satellite System on 1.6 GHz," adopted 23 November 1995, and Annex, "Recommendation on Performance."

(ii) IMO Resolution A.662(16), "Performance Standards for Float-Free Release and Activation Arrangements for Emergency Radio Equipment," with Annex, adopted 19 October 1989.

(iii) Recommendation ITU-R M.632-3, "Transmission Characteristics of a Satellite Emergency Position Indicating Radio Beacon (Satellite EPIRB) System Operating Through Geostationary Satellites in the 1.6 GHz Band," 1997.

(iv) IEC 61097-5, First Edition "Global maritime distress and safety system (GMDSS)—Part 5: Inmarsat-E Emergency position indicating radio beacon (EPIRB) operating through the Inmarsat system—operational and performance requirements, methods of testing and required test results," including Annexes A, B, and C, 1997.

(v) The INMARSAT E-EPIRBs must also comply with § 80.1063.

\* \* \* \* \*

(13) \* \* \* \* \*

(ii) IEC 61097-3 Ed 1.0, "Global maritime distress and safety system (GMDSS) – Part 3: Digital selective calling (DSC) equipment – Operational and performance requirements, methods of testing and required testing results," with Annexes, June 1994.

(iii) IEC 61097-4 Ed 1.0, "Global maritime distress and safety system (GMDSS) – Part 4: INMARSAT-C Ship Earth Station and INMARSAT enhanced group call (EGC) equipment – Operational and performance requirements, methods of testing and required test results," November 1994.

(iv) IEC 61097-6, "Global maritime distress and safety system (GMDSS) – Part 6: Narrowband direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX) – Operational and performance requirements, methods of testing and required test results," February 1995.

(v) IEC 61097-7, "Global maritime distress and safety system (GMDSS) – Part 7: Shipborne VHF radiotelephone transmitter and receiver – Operational and performance requirements, methods of testing and required test results," October 1996.

\* \* \* \* \*

(ix) IEC 61097-12 Ed 1.0, "Global maritime distress and safety system (GMDSS) – Part 12: Survival craft portable two-way VHF radiotelephone apparatus – Operational and performance requirements, methods of testing and required test results," December 1996.

(x) IEC 61097-13 Ed 1.0, "Global maritime distress and safety system (GMDSS) – Part 13: Inmarsat F77 ship earth station equipment – Operational and performance requirements, methods of testing and required test results," May 2003.

(d) \* \* \* \* \*

(3) IEC publications can be purchased from the International Electrotechnical Commission, 3 Rue de Varembe, CH-1211 Geneva 20, Switzerland, or from the American National Standards Institute

(ANSI) through its NSSN operation ([www.nssn.org](http://www.nssn.org)), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York, NY 10036, telephone (212) 642-4900.

(4) ISO Standards can be purchased from the International Organization for Standardization, 1 Rue de Varembe, CH-1211 Geneva 20, Switzerland, or from the American National Standards Institute (ANSI) through its NSSN operation ([www.nssn.org](http://www.nssn.org)), at Customer Service, American National Standards Institute, 25 West 43rd Street, New York, NY 10036, telephone (212) 642-4900.

\* \* \* \* \*

60. Section 80.1103 is amended by revising paragraph (c) to read as follows:

**§ 80.1103 Equipment authorization.**

\* \* \* \* \*

(c) Applicants for verification must attest that the equipment complies with performance standards as specified in § 80.1101 and, where applicable, that measurements have been made that demonstrate the necessary compliance. Submission of representative data demonstrating compliance is not required unless requested by the Commission. An application must include the items listed in §§ 2.953 and 2.955 of this chapter and a copy of the type-approval certification indicating that equipment meets GMDSS standards and includes all peripheral equipment associated with the specific unit under review.

\* \* \* \* \*

61. Section 80.1113 is amended by revising paragraph (b) to read as follows:

**§ 80.1113 Transmission of a distress alert.**

\* \* \* \* \*

(b) The format of distress calls and distress messages must be in accordance with ITU-R Recommendation M.493-11, "Digital Selective-calling system for use in the Maritime Mobile Service," with Annexes 1 and 2, 2004, and ITU-R Recommendation M.541-9, "Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service," with Annexes, 2004, as specified in §80.1101. ITU-R Recommendation M.493-11, with Annexes 1 and 2, and ITU-R Recommendation M.541-9, with Annexes, 2004, are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland.

\* \* \* \* \*

62. Section 80.1117 is amended by revising paragraph (a) to read as follows:

**§ 80.1117 Procedure for receipt and acknowledgement of distress alerts.**

(a) Normally, distress calls received using digital selective calling are only acknowledged using a DSC acknowledgement by a coast station. Ships should delay any acknowledgement in order to give sufficient time for a coast station to acknowledge the call. In cases where no acknowledgement has been heard and no distress traffic has been heard, the ship should transmit a distress alert relay to the coast station. Upon advice from the Rescue Coordination Center, the ship may transmit a DSC acknowledgement call to stop it from being repeated. Acknowledgement by digital selective calling of receipt of a distress alert in the terrestrial services must comply with ITU-R Recommendation M.541-9,

"Operational Procedures for the Use of Digital Selective-Calling Equipment in the Maritime Mobile Service," with Annexes, 2004. ITU-R Recommendation M.541-9 with Annexes is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of this standard can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The ITU-R Recommendation can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH-1211 Geneva 20, Switzerland.

\* \* \* \* \*

63. Section 80.1123 is amended by removing paragraph (d), redesignating paragraphs (e) and (f) as paragraphs (d) and (e), and revising paragraph (c) to read as follows:

**§ 80.1123 Watch requirements for ship stations.**

\* \* \* \* \*

(c) Every ship while at sea must maintain, when practicable, a continuous listening watch on VHF Channel 16. This watch must be kept at the position from which the ship is normally navigated or at a position which is continuously manned.

\* \* \* \* \*

64. Section 80.1125 is amended by revising paragraph (j)(6) to read as follows:

**§ 80.1125 Search and rescue coordinating communications.**

\* \* \* \* \*

(j) \* \* \* \* \*

(6) The name and call sign of the mobile station which was in distress; and

\* \* \* \* \*

65. Section 80.1153 is amended to read as follows:

**§ 80.1153 Station log and radio watches.**

(a) Licensees of voluntary ships are not required to maintain radio station logs.

(b) When a ship radio station of a voluntary ship is being operated, the appropriate general purpose watches must be maintained in accordance with §§ 80.147 and 80.310.

## APPENDIX C

## Final Regulatory Flexibility Analysis

(Third Report and Order in WT Docket No. 00-48)

As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>323</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Second Further Notice of Proposed Rule Making (Second Further Notice)* in this proceeding.<sup>324</sup> The Commission sought written public comment on the proposals in the *Second Further Notice*, including comment on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.<sup>325</sup>

**A. Need for, and Objectives of, the Third Report and Order**

The rules adopted in the *Third Report and Order* are intended to streamline, consolidate and clarify the Commission's Part 80 rules; remove unnecessary or duplicative requirements; address new international maritime requirements; promote flexibility and efficiency in the use of marine radio equipment; and further maritime safety. Specifically, in the *Third Report and Order* the Commission (a) requires that DSC equipment comply with the most recent international standards for such equipment;<sup>326</sup> (b) adds the INMARSAT Fleet F77 earth station to the list of ship earth stations that may be carried in lieu of a single sideband radio by vessels operating more than 100 nautical miles from shore;<sup>327</sup> (c) expands the types of small passenger vessels that are required to carry a reserve power supply;<sup>328</sup> (d) extends the license terms of GMDSS Radio Operator's Licenses, Restricted GMDSS Radio Operator's Licenses, GMDSS Radio Maintainer Licenses, GMDSS Operator/Maintainer Licenses, and Marine Radio Operator Permits from five years to the lifetime of the holder;<sup>329</sup> (e) modifies the requirement that commercial operator license examination (COLE) managers use only the most recent question pool available to the public;<sup>330</sup> (f) removes regulatory language specifying the specific number of questions to be used for each examination element;<sup>331</sup> (f) adopts rules authorizing COSPAS-SARSAT and INMARSAT D+ equipment for use in the Ship Security Alert System;<sup>332</sup> (g) updates references to international standards;<sup>333</sup> (h) makes certain on-board frequencies available for narrowband operations;<sup>334</sup> (i) permits remote control programming of maritime radio transmitters;<sup>335</sup> (j) declines to eliminate

<sup>323</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>324</sup> See Amendment of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Second Report and Order, Sixth Report and Order, and Second Further Notice of Proposed Rule Making*, WT Docket No. 00-48, 19 FCC Rcd 3120, 3205-10 (2004) (*Second Further Notice*).

<sup>325</sup> See 5 U.S.C. § 604.

<sup>326</sup> See paras. 27-29, *supra*.

<sup>327</sup> See para. 31, *supra*.

<sup>328</sup> See paras. 35-37, *supra*.

<sup>329</sup> See para. 41, *supra*.

<sup>330</sup> See *id.*

<sup>331</sup> See *id.*

<sup>332</sup> See paras. 43-44, *supra*.

<sup>333</sup> See para. 45, *supra*.

<sup>334</sup> See *id.*

<sup>335</sup> See para. 47, *supra*.

emission designators on non-distress frequencies;<sup>336</sup> (k) declines to remove rules pertaining to Morse code radiotelegraphy;<sup>337</sup> (l) declines to take action on certain proposals regarding frequency allotments and limitations for ship facsimile communications, radiotelephone public correspondence communications, and private maritime communications;<sup>338</sup> and (m) adopts a number of non-substantive amendments to update and clarify the maritime radio service rules and correct typographical errors.<sup>339</sup>

## **B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA**

No comments were submitted specifically in response to the IRFA. However, some commenters raised concerns about the effect that two of the rule changes might have on small entities. Specifically, the Passenger Vessel Association (PVA) and the North Pacific Marine Radio Council (NPMRC) expressed concern about the burden on small entities of being required to comply with the more rigorous international standards that have been developed for digital selective calling (DSC) radio equipment.<sup>340</sup> In addition, the National Marine Charter Association (NMCA) and PVA expressed concern about the burden of having to carry a reserve power supply on small entities who own or operate small passenger vessels of less than 100 gross tons.<sup>341</sup> We have considered the potential economic impact on small entities of these rules and the other rules discussed in the IRFA, and we have considered alternatives that would reduce the potential economic impact on small entities of the rules enacted herein, regardless of whether the potential economic impact was discussed in any comments.<sup>342</sup>

## **C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply**

The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.<sup>343</sup> The RFA defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>344</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>345</sup> A small business concern is one which (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>346</sup>

Small businesses in the aviation and marine radio services use a marine very high frequency (VHF), medium frequency (MF), or high frequency (HF) radio, any type of emergency position indicating

<sup>336</sup> See para. 48, *supra*.

<sup>337</sup> See para. 49, *supra*.

<sup>338</sup> See para. 50, *supra*.

<sup>339</sup> See paras. 52-67, *supra*.

<sup>340</sup> See paras. 28-29, *supra*, (citing, *inter alia*, PVA Comments at 3; NPMRC Comments at 1; NPMRC Reply Comments at 1).

<sup>341</sup> See paras. 36-37, *supra*, (citing, *inter alia*, NMCA *ex parte* presentation and PVA Comments at 1-3).

<sup>342</sup> See paras. 37-39, *supra*.

<sup>343</sup> 5 U.S.C. § 603(b)(3).

<sup>344</sup> *Id.* § 601(6).

<sup>345</sup> *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." *Id.* § 601(3).

<sup>346</sup> Small Business Act, 15 U.S.C. § 632 (1996).

radio beacon (EPIRB) and/or radar, an aircraft radio, and/or any type of emergency locator transmitter (ELT). The Commission has not developed a definition of small entities specifically applicable to these small businesses. For purposes of this FRFA, therefore, the applicable definition of small entity is the definition under the SBA rules applicable to wireless telecommunications. Pursuant to this definition, a "small entity" for purposes of the ship station licensees, public coast station licensees, or other marine radio users that may be affected by these rules, is any entity employing 1,500 or fewer persons. 13 C.F.R. § 121.201 (NAICS Code 517212).

Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.<sup>347</sup> A "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."<sup>348</sup> Nationwide, as of 2002, there were approximately 1.6 million small organizations.<sup>349</sup> The term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."<sup>350</sup> Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.<sup>351</sup> We estimate that, of this total, 84,377 entities were "small governmental jurisdictions."<sup>352</sup> Thus, we estimate that most governmental jurisdictions are small.

*Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of "Paging"<sup>353</sup> and "Cellular and Other Wireless Telecommunications."<sup>354</sup> Under both categories, the SBA deems a wireless business to be small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year.<sup>355</sup> Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.<sup>356</sup> Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.<sup>357</sup> Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of

<sup>347</sup> See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

<sup>348</sup> 5 U.S.C. § 601(4).

<sup>349</sup> Independent Sector, The New Nonprofit Almanac & Desk Reference (2002).

<sup>350</sup> U.S.C. § 601(5).

<sup>351</sup> U.S. Census Bureau, Statistical Abstract of the United States: 2006, Section 8, page 272, Table 415.

<sup>352</sup> We assume that the villages, school districts, and special districts are small, and total 48,558. See U.S. Census Bureau, Statistical Abstract of the United States: 2006, section 8, page 273, Table 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

<sup>353</sup> 13 C.F.R. § 121.201, NAICS code 517211.

<sup>354</sup> 13 C.F.R. § 121.201, NAICS code 517212.

<sup>355</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517211 (issued Nov. 2005).

<sup>356</sup> *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

<sup>357</sup> U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517212 (issued Nov. 2005).



1,000 employees or more.<sup>358</sup> Thus, under this second category and size standard, the majority of firms can, again, be considered small.

*VHF Public Coast Stations.* Some of the rules adopted herein affect VHF public coast station licensees. The Commission has defined the term “small entity” specifically applicable to public coast station licensees as any entity employing less than 1,500 persons, based on the definition under the Small Business Administration rules applicable to radiotelephone service providers. See Amendment of the Commission’s Rules Concerning Maritime Communications, *Third Report and Order and Memorandum Opinion and Order*, 13 FCC Rcd 19853, 19893 (1998) (citing 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812, now NAICS Code 513322). Since the size data provided by the Small Business Administration do not enable us to make a meaningful estimate of the number of public coast station licensees that are small businesses, we have used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. This document shows that twelve radiotelephone firms out of a total of 1,178 such firms which operated in 1992 had 1,000 or more employees. Thus, we estimate that no fewer than 1,166 small entities will be affected.

*Marine Radio Equipment Manufacturers.* Some of the rules adopted herein may also affect small businesses that manufacture marine radio equipment. The Commission has not developed a definition of small entities applicable to marine radio equipment manufacturers. Therefore, the applicable definition is that for Wireless Communications Equipment Manufacturers. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”<sup>359</sup> The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.<sup>360</sup> According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.<sup>361</sup> Of this total, 1,010 had employment of under 500, and an additional 13 had employment of 500 to 999.<sup>362</sup> Thus, under this size standard, the majority of firms can be considered small.

#### **D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities**

In the *Third Report and Order*, we adopt two rule amendments that may affect reporting,

<sup>358</sup> *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

<sup>359</sup> U.S. Census Bureau, 2002 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

<sup>360</sup> 13 C.F.R. § 121.201, NAICS code 334220.

<sup>361</sup> U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

<sup>362</sup> *Id.* An additional eighteen establishments had employment of 1,000 or more.